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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,418

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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

02/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<i>Office Action Summary</i>	Application No.	Applicant(s)	
	10/537,418	DAVID ET AL.	
	Examiner	Art Unit	
	Krishnan S. Menon	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6 and 8-54 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-10 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 5, 6 and 8-15 are pending in the RCE of 1/26/09, of which claims 6 and 11-14 are withdrawn from consideration.

Claim Rejections - 35 USC § 102/103

1. Claims 1,5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as obvious over, Lorey et al (US 4,995,974).

Lorey teaches (see fig below) an inner tube (112) with open top and closed bottom, having a hydrophobic membrane (138) around it, and located inside an outer tube (114), outer tube having an outlet in the bottom (156) and vent at the top (158), and a continuous rising surface (of the teflon membrane) as claimed. Membrane is PTFE and the pore size overlaps the range claimed. The reference also teaches that the membrane can be selected based on the intended use (column 3, lines 3-9 and 45-50).

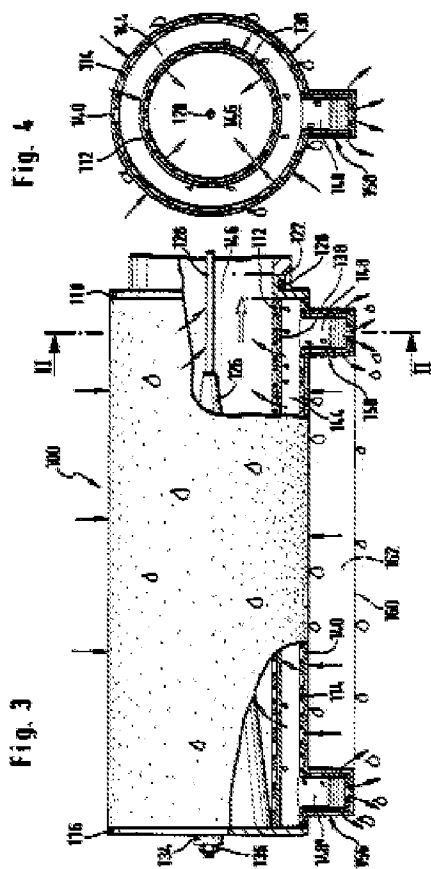
The reference teaches the outer tube also as covered with a PTFE membrane, the whole thing installed in a container or housing, and that the figures 3 and 4 are for horizontal operation. However, these details do not disqualify the reference, claims are open-ended. Moreover, the hydrophobic membrane would pass the organic liquids through the membrane from the outer tube; and the pores of the membrane would also allow air venting. Oil/water separation is intended use.

Material of outer tube is plastic or glass or metal as in claim 10.

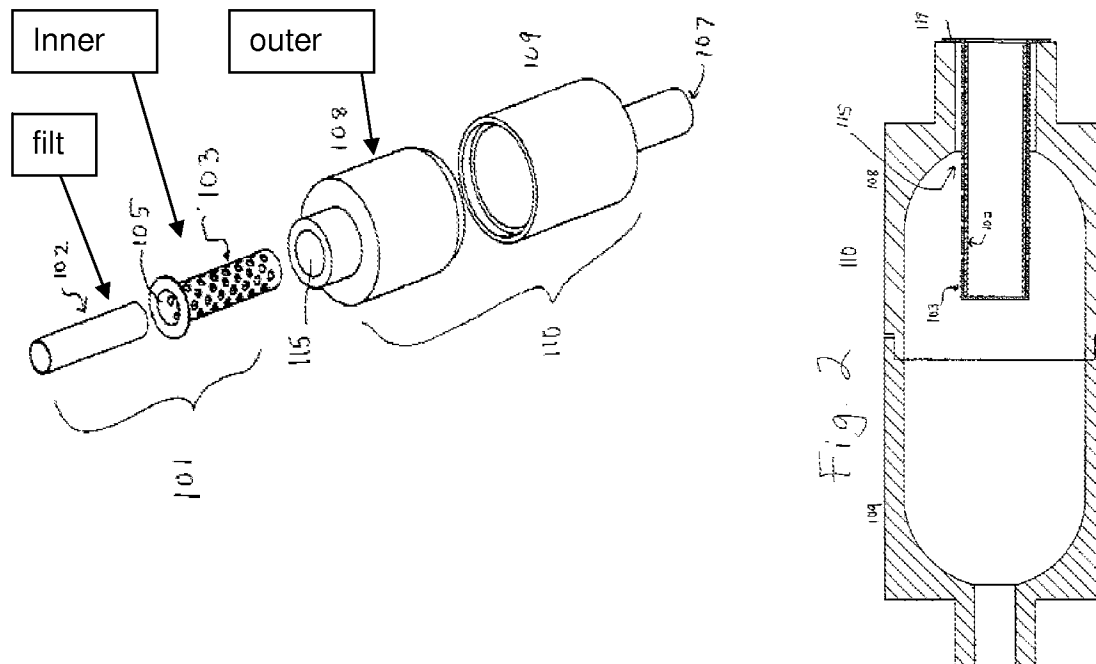
With respect to claim 4, the inner tube has a wider (flanged) top.

Regarding claim 5, applicant elected this claim as readable on figure 1, even if claim 5 appears to be directed at figures 6-8, and thus is considered as an obvious equivalent of applicant's fig 1.

U.S. Patent Feb. 26, 1992 Sheet 2 of 3 4,995,974

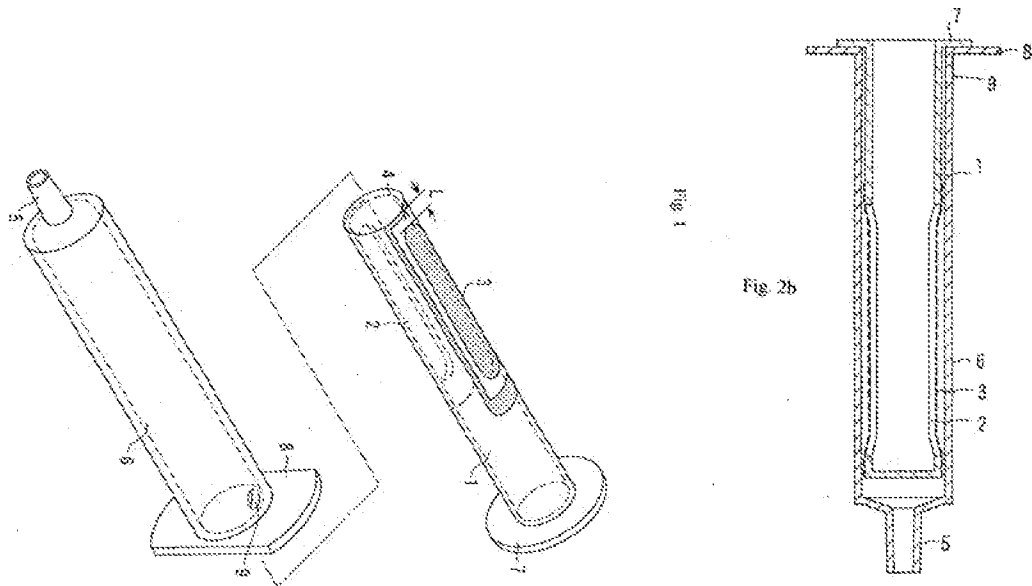


2. Claims 1,4,5, 8-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hunicke-Smith (US 2002/0185429) and Haight (US 6758,951)



Hunicke-Smith: Details of claims 1,4 and 8-10 are clear from the exploded view of the device shown above, which are figures 1 and 2 of the Hunicke-Smith reference. Material of the outer tube is plastic or glass. Membrane is Teflon, pore size can be as desired, and also in the claimed range – see paragraphs 34-36. Oil/water separation is intended use.

Applicant's fig 2b - see applicant's fig 1 and 2b reproduced below. In the reference, the 'large diameter upper end' of the inner tube (the flange) rests or stops on the rim or upper end of the outer tube as in claim 4.



Regarding the vent as recited in claim 1, since the inner tube is only resting over the top rim of the outer tube as seen in the figures of the reference (no tight seal), the top opening (mouth) of the outer tube functions as a vent. Also, providing a vent hole when necessary would be within the skill level of one of ordinary skill in the art, and such vents are also well known in the art.

Alternately, if one were to follow applicant's arguments, then the membrane can be the inner tube and the perforated tube can be the outer tube, which has holes or perforations for venting as well as draining the liquids.

It would also be obvious to one of ordinary skill to provide a vent for letting air in or out depending on the operation, as taught by Haight as shown below.

Claim 5 is considered as an obvious equivalent of applicant's fig.1, and thus obvious over this reference.

The bottom of the outer tube is funnel shaped.

Haight: Haight teaches (see fig 1 below) a perforated inner tube (15) having a membrane (17) wound around it, which is inserted in an outer tube (33), which has a bottom drain (39) and a vent (35). The membrane in Haight is hydrophilic, as opposed to the hydrophobic membrane claimed. However, it would be obvious to one of ordinary skill in the art to have a hydrophobic membrane in place of a hydrophilic membrane depending on the liquid to be separated.

One of ordinary skill would combine the teachings of these references to arrive at applicant's invention because it provides nothing more than predictable results. See *KSR Int'l. v. Teleflex Inc.*, 127 S. Ct. 1727, 1732, 82 USPQ2d 1385, 1390 (2007). "it is commonsense that familiar items have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle". "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results".

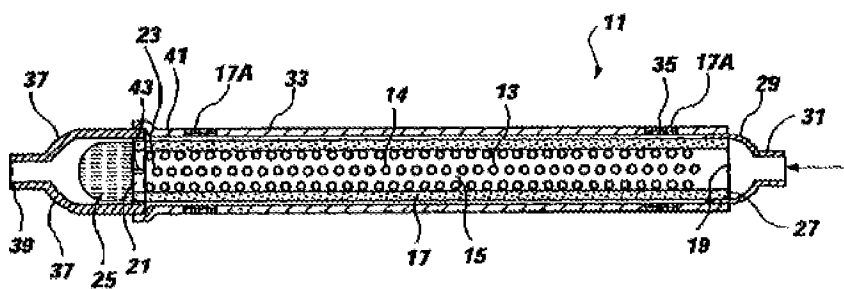
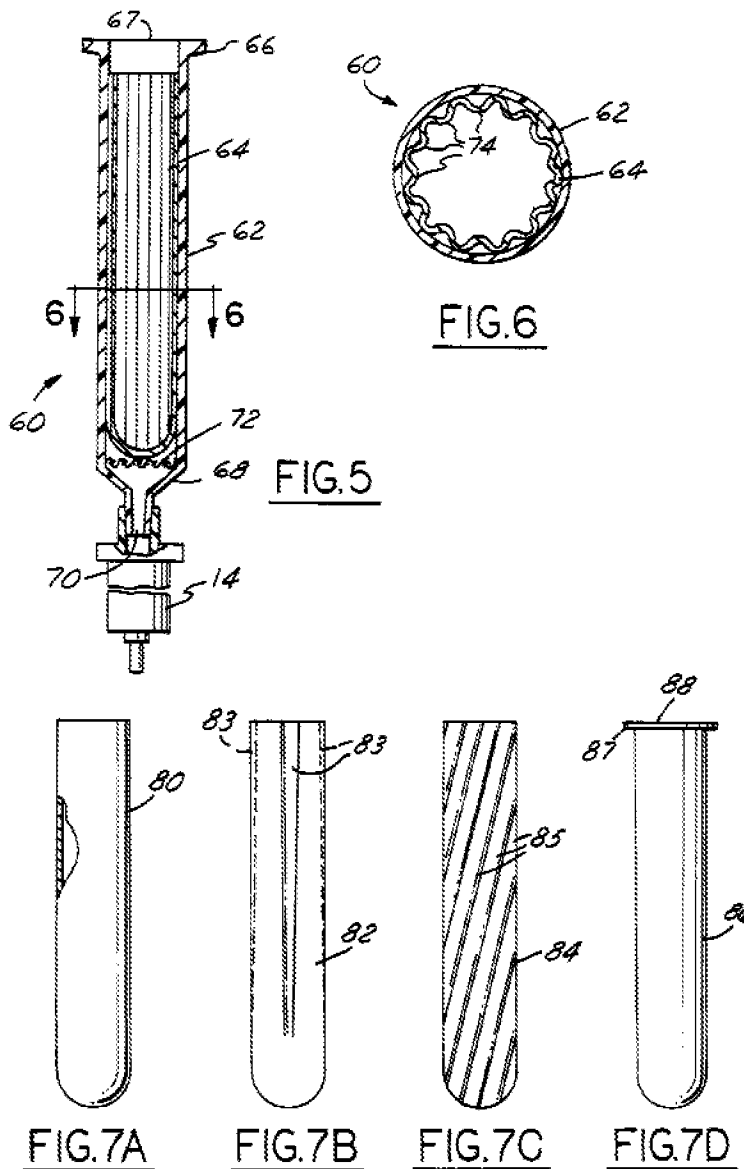


Fig. 1

3. Claims 1,4,5, 8-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWit (US 6,183,645) in view of Haight.

Dewit teaches a thimble filter (86) inside a tube (62) which has a wide open top on which the filter rests (fig 5 and 7D), and an outlet at the bottom. Filter material is Teflon (C3, L20-23)



The reference does not teach a vent hole and the pore size of the filter. The structure as contemplated by figures 5 and 7D would be self-venting since the thimble filter in fig 7D would only loosely fit the tube (62). However, providing a vent hole is

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within the skill of one of ordinary skill in the art and is not patentable without a showing of non-obviousness with secondary evidences. Providing a vent in this type of filter designs is also known in the art – see Haight above. Pore sizes of the filter can be chosen for its intended use as is evidenced by the references cited above in rejections 1 and 2.

Response to Arguments

Arguments are not persuasive. Arguments that outer tube 114 in Lorey has plurality of openings, or that filtrate would "fly out" etc are not commensurate with the scope of the claims. Lorey is also capable of inside-out filtration.

Argument about Hunicke-Smith regarding the vent is not persuasive: the inner tube is not sealed to the outer tube at the top, loosely fit. Providing a vent in the outer tube is also a simple choice of design, and has no patentable merit, unless applicant can provide evidence otherwise.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/
Primary Examiner, Art Unit 1797